

## ABSTRACT

The present invention provides a method and apparatus for performing channel estimation in a wireless system including the steps of receiving a signal including training symbols embedded within data symbols, estimating training channel responses for the training symbols, and adapting an interpolator for generating data channel responses for the data symbols by interpolating the training channel responses. The present invention provides a subscriber unit for receiving a wireless signal including training symbols embedded within data symbols, the subscriber unit including a response estimator for estimating the training channel responses for the training symbols and an adaptive interpolator for generating data channel responses for the data symbols by interpolating the training channel responses. The present invention provides a wireless system including a transmitter for transmitting a signal including training symbols embedded within data symbols and a subscriber unit including a response estimator for estimating training channel responses for training symbols and an adaptive interpolator for generating data channel responses for data symbols by interpolating the training channel response.